

Atty. Docket No. YOR920030199US1  
(590.110)

### REMARKS

The fact that June 24, 2006, fell on a Saturday ensures that this paper is timely filed as of Monday, June 26, 2006, the next business day.

Applicants and the undersigned are most grateful for the time and effort accorded the instant application by the Examiner. The Office is respectfully requested to reconsider the rejections presented in the outstanding Office Action in light of the following remarks. It is respectfully noted that because the statutory date for this application falls on a weekend, this response filed on the first available business day after said weekend is appropriate.

The specification has been objected to regarding three different paragraphs that allegedly contain informalities. In response to the informalities that are directed towards spelling mistakes, these mistakes have been corrected in the amendments to the specification presented above.

In response to the alleged mathematical mistake in the specification, Applicant is unclear as to how examiner views this expression as incorrect. As stated in the paragraph in contention in the specification, an "expression with real values of  $v$ , such as  $((v > 2.5) \wedge (v < 3.2))$  can be written as  $(2.5 < v < 3.2)$ ". As is well-known in the art, if a real number  $v$  is greater than 2.5 and is less than 3.2, that expression can be written in both the first and second formats as shown in the specification. Thus, this objection is respectfully traversed, because Applicant is unclear as to how there is a mathematical

Atty. Docket No. YOR920030199US1  
(590.110)

error in the above statement. Reconsideration and withdrawal of this objection is respectfully requested.

Claims 1-9 were pending in the instant application at the time of the outstanding Office Action. Of these claims, claims 1, 5, and 9 are independent claims; the remaining claims are dependent claims. Claims 1, 5, and 9 have been rewritten. The Applicants, however, intend no change in the scope of the claims by the changes made by this amendment. It should be noted this amendment is not in acquiescence of the Office's position on the allowability of the claims, but merely to expedite prosecution.

Claims 1-9 stand rejected under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. The independent claims have been amended to address this issue. Reconsideration and withdrawal of the rejection is respectfully requested.

Claims 1-9 also stand rejected under 35 U.S.C. 112 as a result of being rejected under 35 U.S.C. 101. This rejection is respectfully traversed upon the grounds of explanation given above. Based upon the current amendment of the claims, this rejection is neither applicable nor valid. Further, Applicant interprets this explanation from the examiner as an assertion that the claims are not enabled by the specification because they are not "practical". Applicant respectfully traverses the rejection on that basis as well, because the claims find full support in the specification as filed. Thus, reconsideration and withdrawal of this rejection is respectfully requested.

Claims 4 and 8 also stand rejected under 35 U.S.C. 112, second paragraph for lacking antecedent basis. However, claim 4 depends upon claim 3, which depends upon

Atty. Docket No. YOR920030199US1  
(590.110)

claim 2, which in turn depends upon independent claim 1. Claim 2 introduces the idea of a boolean expression, which is further narrowed in claim 3, and subsequently in claim 4. Claim 8 follows a similar pattern. Thus, Applicant is unclear in what way the limitation of "the boolean expression" lacks antecedent basis. Thus, the rejection is respectfully traversed. Reconsideration and withdrawal of this rejection is respectfully requested.

Broadly speaking, the present invention relates to the classification of objects. This classification is achieved using the best boolean expression that represents the most optimal combination of the underlying features. This boolean expression is optimized through the minimization of the error of the expression which defines the query.

Claims 1-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Marshall. In contrast to the present invention, Marshall relates, as best understood, to a method for classification to ordinal categories by nesting binary partitions of data. Marshall does not discuss or disclose optimization of the boolean expression which defines the query. Rather, Marshall discusses binary partitions of ordinal data, and the nesting of those partitions. Further, there is no minimization of the error of the expression, let alone analysis of such error.

Regarding the rejection of independent claims 1, 5, and 9 the Examiner cites the SPAN approach to classification, using a binary approach to classify ordinal data. This is in stark contrast the independent invention, which has no such limitations as to type of data or to a binary approach. Specifically, the independent invention states a method of "identifying properties of objects, formulating a query to identify objects having

Atty. Docket No. YOR920030199US1  
(590.110)

properties of interest, selecting properties of the objects to compare with object properties included in the query, and determining if based on the selected properties if the object belongs in the query”.

The most immediate failure of the prior art in teaching the invention as claimed is the failure of Marshall to teach a “formulating a query to identify objects having properties of interest” which goes to the heart of the present invention. Rather, Marshall compares all of the boolean combinations of the data to find a binary partition of the data. This is in no way comparable or suggestive of formulating a query to identify objects having properties of interest.

The partition provides a split of the data such that the data is homogenous with respect to one outcome variable. There is no identification of properties of interest in this split, nor is there any suggestion or hint of utilizing more than one property as a basis on which to split the data. Thus, it is respectfully submitted that there is a clear difference between partitioning data to find a homogenous split of data with respect to one outcome variable and formulating a query to identify objects having properties of interest.

For this reason alone, anticipation is improper because, at the very least, “[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under construction.” W.L. Gore & Associates, Inc. v. Garlock, 721 F.2d 1540, 1554 (Fed. Cir. 1983); see also In re Marshall, 198 U.S.P.Q. 344, 346 (C.C.P.A. 1978). Thus, reconsideration and withdrawal of this rejection is respectfully considered.

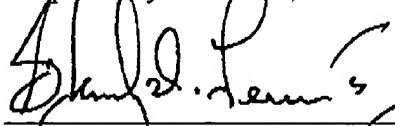
Atty. Docket No. YOR920030199US1  
(590.110)

In view of the foregoing, it is respectfully submitted that independent claims 1, 5, and 9 fully distinguish over the applied art and are thus are in condition for allowance. By virtue of dependence from what are believed to be allowable independent claims, it is respectfully submitted that claims 2-4 and 6-8 are also presently allowable.

The "prior art made of record" has been reviewed. Applicants acknowledge that such prior art was not deemed by the Office to be sufficiently relevant as to have been applied against the claims of the instant application. To the extent that the Office may apply such prior art against the claims in the future, Applicants will be fully prepared to respond thereto.

In summary, it is respectfully submitted that the instant application, including claims 1-9, is presently in condition for allowance. Notice to the effect is earnestly solicited. If there are any further issues in this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Stanley D. Ference III  
Registration No. 33,879

**Customer No. 35195**  
**FERENCE & ASSOCIATES**  
409 Broad Street  
Pittsburgh, Pennsylvania 15143  
(412) 741-8400  
(412) 741-9292 - Facsimile

Attorneys for Applicants